

the submission under 37 C.F.R. §1.129. This four-month extension will bring the due date to November 5, 2001 (because November 3, 2001 is a Saturday), which is within the statutory period. Should such request or fee be deficient or absent, consider this paragraph such a request and authorization to withdraw the appropriate fee under 37 C.F.R. §§ 1.16 to 1.21 from Fulbright & Jaworski, LLP, Account No. 50-1212/10007970/GNS.

Therefore, Applicants respectfully request the amendments be entered and the claims be considered in view of the remarks contained herein.

I. AMENDMENT

In the Claims:

Please cancel claims 64, 110, 111, 115, 124, 133, and 136, without prejudice or disclaimer.

Please amend the claims as follows:

91. (Twice amended) A process of screening a substance for its ability to specifically bind to an opioid receptor, said process comprising the steps of:

- #1
- a) expressing a recombinant opioid receptor polypeptide encoded for by a nucleic acid sequence comprising at least 30 contiguous bases of SEQ ID NO:1;
 - b) contacting said substance with the opioid receptor polypeptide; and
 - c) detecting the ability of said substance to specifically bind to said opioid receptor polypeptide.

97. (Twice amended) A process of screening a substance for its ability to specifically bind to an opioid receptor, said process comprising the steps of:

- #2
- a) expressing a recombinant opioid receptor polypeptide encoded for by a nucleic acid sequence comprising at least 30 contiguous bases of SEQ ID NO:11;

- #2
Cont
- b) contacting said substance with the opioid receptor polypeptide; and
 - c) detecting the ability of said substance to specifically bind to said opioid receptor polypeptide.

#1
Sub I

103. (Twice amended) A process of isolating a substance with an ability to act as a specific agonist of a kappa opioid receptor, said process comprising the steps of:

- #3
- a) providing an opioid receptor polypeptide comprising SEQ ID NO:17, wherein the polypeptide is encoded for by a nucleic acid sequence comprising at least 30 contiguous bases of SEQ ID NO:1;
 - b) contacting said opioid receptor polypeptide with a composition comprising said substance;
 - c) detecting the ability of said substance to act as a specific agonist of said opioid receptor; and
 - d) isolating said substance if the ability of said substance to act as a specific agonist of the opioid receptor is detected.

#4
Sub I2

109. (Twice amended) A process of isolating a substance with an ability to act as a specific agonist of a kappa opioid receptor, said process comprising the steps of:

- a) providing an opioid receptor polypeptide comprising SEQ ID NO:17 and encoded for by a nucleic acid sequence comprising at least 60 contiguous bases of SEQ ID NO:11;
- b) contacting said opioid receptor polypeptide with a composition comprising said substance;

- H4 Sub 12 Cont Cont
- c) detecting the ability of said substance to bind to said opioid receptor polypeptide;
and
d) isolating said substance if the ability of said substance to specifically bind to the opioid receptor polypeptide is detected.

H5

112. (Twice amended) The process of claim 109, wherein said opioid receptor polypeptide is encoded for by a nucleic acid sequence comprising at least 75 contiguous bases of SEQ ID NO:11.

116. (Amended) The process according to claim 91, wherein said opioid receptor polypeptide is a chimeric opioid receptor polypeptide.

H6 Sub 13

117. (Amended) The process of claim 116, wherein the chimeric opioid receptor polypeptide comprises SEQ ID NO:17.

118. (Amended) The process of claim 116, wherein the chimeric opioid receptor polypeptide comprises SEQ ID NO:14.

H7

121. (Amended) The process according to claim 91, wherein the opioid receptor polypeptide is a kappa opioid receptor polypeptide having the sequence of SEQ ID NO:2.

H8

123. (Amended) The process of claim 143, wherein said opioid receptor polypeptide is a kappa opioid receptor polypeptide encoded for by the polynucleotide of SEQ ID NO: 11.

125. (Amended) The process of claim 103, wherein the opioid receptor polypeptide is a chimeric opioid receptor polypeptide.

H9

126. (Amended) The process of claim 125, wherein one polypeptide of the chimeric opioid receptor polypeptide comprises the third extracellular loop of delta opioid receptor.

127. (Amended) The process of claim 125, wherein the opioid receptor polypeptide comprises portions of both kappa and delta opioid receptors.

128. (Amended) The process of claim 125, wherein the chimeric polypeptide comprises κ_{1-69} or δ_{78-372} or $\delta_{1-69}/\kappa_{79-380}$.

Sub I4
H9
Cont
129. (Twice Amended) A process of screening a substance for its ability to act as a specific agonist of a kappa opioid receptor comprising:

- a) expressing a chimeric recombinant opioid receptor polypeptide comprising SEQ ID NO:17, wherein said opioid receptor polypeptide is encoded by a nucleic acid sequence comprising at least 30 contiguous bases of SEQ ID NO:1;
- b) contacting said substance with the opioid receptor polypeptide; and
- c) detecting the ability of the substance to specifically bind to the opioid receptor polypeptide.

Please add the following claims:

Sub I5
H10
--137. (New) A process of screening a substance for its ability to act as a specific agonist of a kappa opioid receptor comprising:

- a) expressing a chimeric recombinant opioid receptor polypeptide comprising SEQ ID NO:17, wherein said chimeric opioid receptor polypeptide is encoded by a nucleic acid sequence comprising 60 contiguous bases of SEQ ID NO:11;
- b) contacting said substance with the opioid receptor polypeptide; and
- c) detecting the ability of the substance to specifically bind to the opioid receptor polypeptide.

138. (New) The process of claim 137, wherein said nucleic acid sequence comprises 40 contiguous bases of SEQ ID NO:1.

*Sub
56*
139. (New) The process of claim 137, wherein said nucleic acid sequence comprises 55 contiguous bases of SEQ ID NO:1.

140. (New) The process of claim 137, wherein said nucleic acid sequence comprises 70 contiguous bases of SEQ ID NO:1.

*H10
Cont*
141. (New) The process of claim 137, wherein a portion of the chimeric opioid receptor polypeptide comprises SEQ ID NO:14.

142. (New) The process of claim 137, wherein the chimeric opioid receptor polypeptide comprises polypeptide portions of both kappa and delta opioid receptors.

143. (New) The process according to claim 97 wherein the opioid receptor polypeptide is a kappa opioid receptor polypeptide comprising SEQ ID NO:12.--

II. RESPONSE TO OFFICE ACTION

A. Status of the Claims

The Office Action (final) dated January 30, 2001 indicates that claims 97-136 are rejected and claims 91-96 are allowable. The Examiner notes in the Office Action that claim 64 appears to be pending. Claim 64 was not expressly cancelled in the previous response because that claim was not addressed in any of the rejections; however, Applicants cancel it herein. In addition, claims 64, 110, 111, 115, 124, 133, and 136 are cancelled. Herein, claims 91, 97, 103, 109, 112, 116-118, 121, 123, and 125-129 are amended and claims 137-143 are added. Support for the amendments can be found on page 21, lines 22-24; page 23, lines 1-14; page 25, lines 12-19;

page 28, lines 30-34; and page 127, lines 1-4, and in the originally filed claims. A marked up copy of the amendments is attached as Appendix A. Thus, claims 97-109, 112-114, 116-123, 125-132, 134, 135, and 137-143 are the subject of this response. A clean copy of the pending claims is attached as Appendix B.

B. Summary Status of the Case

The present application was filed on May 31, 1995 as a divisional of U.S. Serial Number 08/292,694 filed on August 19, 1994, which claims priority to a number of applications, of which the earliest was filed on May 30, 1993. After receiving a Final Office Action on June 29, 1998, Applicants filed a Notice of Appeal with a 3-month extension of time on December 29, 1998. On July 6, 1999, with a 4-month extension of time, Applicants filed a first submission under 37 C.F.R. 1.129. After several Office Actions, Applicants received another Final Office Action on January 30, 2001. An amendment and response under 37 C.F.R. 1.116 was filed on April 30, 2001 with a Notice of Appeal. Applicants file this second submission under 37 C.F.R. 1.129, as is allowed under this provision.

C. The Specification Adequately Describes Claims 97-102 and 109-114

The Office Action rejects claim 97-102 and 109-114 under 35 U.S.C. § 112, first paragraph, as lacking a written description. As argued previously, the application provides sequence information to indicate the Applicants were in possession of SEQ ID NO:11 at the time the application was filed. Patent law does not require applicants to limit specifically their invention only to embodiments reduced to practice, which is what the arguments in the Office Action suggest. Applicants respectfully request the rejection be withdrawn.

D. Claims 91-102 and 109-114 Have Been Amended to "Specifically Binds to"

Claims 91-102 and 109-114 were rejected under 35 U.S.C. § 112, and it was suggested that "interact with" be replaced with "specifically bind to." Applicants appreciate the Examiner's suggestion, which has been adopted. Independent claims 91 and 109 have been amended. Accordingly, Applicants respectfully request that this rejection be withdrawn.

E. Claims 103-114 and 129-135 Are Enabled

The Action rejects claims 103-114 and 129-135 under 35 U.S.C. 112, first paragraph. The Action states that a limitation to the second extracellular loop is not recited in the claims. However, claim 103 specifically recites a "second extracellular loop," which is described by amino acid sequence in the specification at page 96. "[C]laims are to be read in view of the specification of which they are a part." *Young Dental Mfg. Co. v. Q3 Special Prods., Inc.* 42 U.S.P.Q. 1589 (Fed. Cir. 1997). Thus, there is no need to amend claim 103 to recite particular amino acids that constitute the second extracellular loop. However, in the interests of expediting the prosecution of this case, Applicants have amended claims 103 and 129 to recite SEQ ID NO:17, which corresponds to the amino acid sequence for the second extracellular loop.

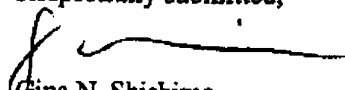
F. Conclusions

Applicants have submitted remarks that are believed to place the present claims in condition for allowance. In view of this, Applicants respectfully request that the present claims be passed for allowance. Should the Examiner have any comments or questions with regard to any statements contained herein, or any suggestions as to claim modifications, the Examiner is

encouraged to contact the Applicants' representative listed below. Once again, Applicants appreciate the Examiner's patience and respectfully submit this response for his consideration.

Please date-stamp and return the enclosed postcard evidencing receipt of these materials.

Respectfully submitted,



Gina N. Shishima

Reg. No. 45,104

Attorney for Applicant

Fulbright & Jaworski, LLP
600 Congress Avenue, Suite 2400
Austin, Texas 78701
(512) 536-3081
(512) 536-4598 (facsimile)

Date: November 5, 2001